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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 1886.119-2015

National Food Safety Standard -- Food Additives -- 1,8 Cineole

食品安全国家标准 食品添加剂 1，8-桉叶素

(English Translation)

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2.1 Chemical Name

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1 Scope

This standard applies to eucalyptus oil as raw material, distillation, refrigeration, separation and processing the resulting food additive 1,8-cineole (Isolated).

2.1 Chemical Name

1,8-epoxy-p-menthane; 1,3,3-trimethyl-2-oxabicyclo [2.2.2] octane Formula 2.2 C10H18O

2.4 Relative molecular mass

154.25 (according to 2007 international relative atomic mass)

3.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 Sensory requirements

Project requires test methods Color colorless Liquid state the sample was placed in a cuvette, were visually observed Aroma has a camphor-like flavor GB/T 14454.2

3.2 Physical and Chemical Indicators

Physical and chemical indicators should be consistent with the provisions of Table 2.

Table 2. Physical and chemical indicators

Item Index Test Method Solubility (25 °C) 1mL sample soluble in 5mL60% (volume fraction) ethanol GB/T 14455.3 1,8 cineole content, w /% >= 98.0 Appendix A Acid value (in dollars KOH)/(mg/g) <= 1 GB/T 14455.5 Refractive index (20 °C) 1.4540 ~ 1.4600 GB/T 14454.4

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the relative density (25 °C/25 °C) 0.921 ~ 0.924 GB/T 11540 Optical rotation (20 °C) -0.5 ° ~ 0.5 ° GB/T 14454.5 Appendix A Determination of 1,8-cineole content A.1 instruments and equipment A.1.1 chromatograph. According to GB/T 11538-2006 provisions in Chapter 5.

A.1.2 Column. capillary column.

A.1.3 Detector. Hydrogen flame ionization detector.

A.2 Determination

Area normalization method. According to GB/T 11538-2006 10.4 Determination.

A.3 repeatability and results are shown According to GB/T 11538-2006 provisions in 11.4, shall comply with the requirements.

Food additives 1,8 cineole gas chromatograph (area normalization method) See Appendix B.

Appendix B

Food additives 1,8 cineole gas chromatogram (Area normalization method) B.1 food additives 1,8 cineole gas chromatogram Food additives 1,8 cineole gas chromatography is shown in Figure B.1.

Figure B.1 food additives 1,8 cineole gas chromatogram

B.2 operating conditions B.2.1 Column. capillary column length 30m, an inner diameter of 0.25mm.

B.2.2 stationary phase. polyethylene glycol.

B.2.3 film thickness. 0.25μm.

B.2.4 chromatography oven temperature. 96 °C constant temperature.

B.2.5 inlet temperature. 210 °C.

B.2.6 detector temperature. 260 °C.

B.2.7 Detector. Hydrogen flame ionization detector.

B.2.8 carrier gas. nitrogen.

Before B.2.9 column pressure. 0.06MPa.

B.2.10 Injection volume. about 0.2μL.

B.2.11 Split ratio. 100.1.

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